

NETWORK DEVICE INTERFACE FOR DIGITALLY INTERFACING DATA CHANNELS TO A CONTROLLER VIA A NETWORK

ABSTRACT OF THE DISCLOSURE

5 The present invention provides a network device interface and method for digitally connecting a plurality of data channels to a controller using a network bus. The network device interface interprets commands and data received from the controller and polls the data channels in accordance with these commands. Specifically, the network device interface receives digital commands and data from
10 the controller, and based on these commands and data, communicates with the data channels to either retrieve data in the case of a sensor or send data to activate an actuator. In one embodiment, the bus controller transmits messages to the network device interface containing a plurality of bits having a value defined by a transition between first and second states in the bits. The network device interface determines
15 timing of the data sequence of the message and uses the determined timing to communicate with the bus controller.

CLT01/4617339v1

20